

SAN DIEGO COUNTY

Site name: Buena Vista Lagoon State Marine Park

Year established: 1969

Approximate Area: 0.27 nm² **Approximate Shoreline length:** 23.01 nm

Approximate Depth range (feet): not available

Habitat types: Estuarine tidal lagoon and channels with salt marsh habitat.

Surrounding habitat types: Coastal lowlands and bluffs, and urban development.

Summary of existing regulations: Take of all living marine resources is prohibited except the recreational take of species other than kelp by hook and line from shore between the hours of 6:00 a.m. and 12:00 midnight. Boating, swimming, wading, and diving are prohibited within the MPA.

Primary objectives: This area was originally designated as an ecological reserve. Fish and Game Code Section 1580 (ecological reserves) states that "the policy of the state is to protect threatened or endangered native plants, wildlife, or aquatic organisms or specialized habitat types, both terrestrial and nonmarine aquatic, or large heterogeneous natural gene pools for the future use of mankind through the establishment of ecological reserves." Although the language does not specifically refer to ecological reserves in marine areas, the Fish and Game Commission has extended this policy to those areas.

Existing enforcement: Included as part of normal Department of Fish and Game marine patrol activities for this general area based on available patrol resources and level of fishery activity in the area.

Baseline and ongoing monitoring and research studies: None found.

Basic Evaluation: Insufficient information for evaluation at this time.

Site name: Agua Hedionda Lagoon State Marine Reserve

Year established: 2002

Approximate Area: not available

Approximate Shoreline length: 4 nm

Approximate Depth range (feet):

Habitat types: not available

Surrounding habitat types: not available

Summary of existing regulations: No take is allowed. The department, and the County of San Diego, after consultation with the department, may carry out management activities for fish and wildlife, flood control and vector control. Authorized operation and maintenance activities shall include, but shall not be limited to, use of chemicals, vegetation control, water control and use of associated equipment.

Primary objectives: This area was originally designated as an ecological reserve. Fish and Game Code Section 1580 (ecological reserves) states that "the policy of the state is to protect threatened or endangered native plants, wildlife, or aquatic organisms or specialized habitat types, both terrestrial and nonmarine aquatic, or large heterogeneous natural gene pools for the future use of mankind through the establishment of ecological reserves." Although the language does not specifically refer to ecological reserves in marine areas, the Fish and Game Commission has extended this policy to those areas.

Existing enforcement: Included as part of normal Department of Fish and Game marine patrol activities for this general area based on available patrol resources and level of fishery activity in the area.

Baseline and ongoing monitoring and research studies: not available

Basic Evaluation: Insufficient information for evaluation at this time.

Site name: Batiquitos Lagoon State Marine Park

Year established: 1978

Approximate Area: 0.25 nm² **Approximate Shoreline length:** 2.67 nm

Approximate Depth range (feet): not available

Habitat types: Estuarine tidal lagoon and channels with salt marsh habitat.

Surrounding habitat types: Coastal lowlands and bluffs, coastal beaches and urban development.

Summary of existing regulations: Take of all living marine resources is prohibited except the recreational take of finfish by hook and line from shore.

Primary objectives: This area was originally designated as an ecological reserve. Fish and Game Code Section 1580 (ecological reserves) states that "the policy of the state is to protect threatened or endangered native plants, wildlife, or aquatic organisms or specialized habitat types, both terrestrial and nonmarine aquatic, or large heterogeneous natural gene pools for the future use of mankind through the establishment of ecological reserves." Although the language does not specifically refer to ecological reserves in marine areas, the Fish and Game Commission has extended this policy to those areas.

Existing enforcement: Included as part of normal Department of Fish and Game marine patrol activities for this general area based on available patrol resources and level of fishery activity in the area.

Baseline and ongoing monitoring and research studies: None found.

Basic Evaluation: Insufficient information for evaluation at this time.

Site name: Encinitas State Marine Conservation Area

Year established: 1989

Approximate Area: 0.09 nm²

Approximate Shoreline length: 0.78 nm

Approximate Depth range (feet): not available

Habitat types: Primarily soft/sand bottom

Surrounding habitat types: Primarily soft/sand bottom

Summary of existing regulations: Take of all living marine resources is prohibited except the commercial and recreational take of finfish.

Primary objectives: This area was originally designated as a marine life refuge. Although no specific objectives were provided for the marine life refuge designation, Fish and Game Code Section 10500 states that "Except under specific permit or authorization, it is unlawful: (f) To take or possess any invertebrate or specimen of marine plant life in a marine life refuge." In addition, individual marine life refuges may have been established for a variety of site specific purposes.

Existing Enforcement: Included as part of normal Department of Fish and Game marine patrol activities for this general area based on available patrol resources and level of fishery activity in the area.

Baseline and ongoing monitoring and research studies: None found

Basic Evaluation: May provide some level of protection for some invertebrates and all plants in a sandy beach area with a limited amount of rocky habitat, however, present information is insufficient to provide a meaningful evaluation.

Site name: Cardiff and San Elijo State Marine Conservation Area

Year established: 1989

Approximate Area: 1.29 nm²

Approximate Shoreline length: 2.28 nm

Approximate Depth range (feet): 0 to 55

Habitat types: Intertidal sandy beach, cobble beach, intertidal platform and tidepools, localized rip-rap revetment. High and low relief reefs in the subtidal zone with patchy surfgrass and small kelp beds surrounded by sand, *Macrocystis* beds about 1000 ft offshore.

Surrounding habitat types: Similar to the site.

Summary of existing regulations: No recreational take of living or non-living marine resources is allowed except: finfish, chiones, clams, cockles, rock scallops, native oysters, crabs, lobsters, ghost shrimp, sea urchins, mussels and marine worms except that no worms may be taken in any mussel bed unless taken incidentally to the take of mussels. Commercial take is allowed.

Primary objectives: This area was originally designated as an underwater park. Underwater parks have no legally mandated mission but they are basically extensions of State Beaches. However, McArdle (1991) states "underwater parks are designed to preserve outstanding natural, scenic, and cultural values, indigenous aquatic and terrestrial fauna and flora, and the most significant examples of ecological regions in CA. The purpose of Cardiff and San Elijo State Marine Conservation Area is to make available to the people, for their benefit and enjoyment forever, the scenic and recreational resources inherent to the coastal beaches and adjacent uplands of San Diego."

Existing Enforcement: Included as part of normal Department of Fish and Game marine patrol activities for this general area based on available patrol resources and level of fishery activity in the area. State Park rangers, lifeguards and other staff provide an added on-site enforcement presence. There are seven rangers assigned to this site with one patrolling during the day and two to three at night. City lifeguards and county sheriffs may also provide some enforcement effort, if needed.

Baseline and ongoing monitoring and research studies: SANDAG 2000. EIR for beach sand replenishment has detailed habitat descriptions, plant/algae, invertebrates, fish and bird species lists ranging from 1993 to 1999, human usage reports from 1999; commercial fishery landings from 1987 to 1998, kelp maps from 1967-1992, kelp data from 1983-1999 and side-scan sonar data.

Basic Evaluation: Provides some level of protection for most invertebrates and some fishes in a southern California coastal nearshore reef/sand habitat. Actual effectiveness is limited because take of finfish and a number of invertebrate species is allowed.

Site name: San Elijo Lagoon State Marine Park

Year established: 1977

Approximate Area: 1.04 nm² **Approximate Shoreline length:** 4.74 nm

Approximate Depth range (feet): not available

Habitat types: Estuarine tidal lagoon and channels with salt marsh habitat.

Surrounding habitat types: Estuarine tidal lagoon and channels with salt marsh habitat.

Summary of existing regulations: Take of all living marine resources is prohibited except the recreational take of finfish by hook and line from shore. Boating, swimming, wading, and diving are prohibited within the Park. San Diego County, after consultation with the department, may carry out management activities for fish and wildlife management, flood control, vector control and regional park recreational activities. Authorized operation and maintenance activities shall include, but shall not be limited to, use of chemicals, vegetation control, water control, minor ditching and use of associated equipment.

Primary objectives: This area was originally designated as an ecological reserve. Fish and Game Code Section 1580 (ecological reserves) states that "the policy of the state is to protect threatened or endangered native plants, wildlife, or aquatic organisms or specialized habitat types, both terrestrial and nonmarine aquatic, or large heterogeneous natural gene pools for the future use of mankind through the establishment of ecological reserves." Although the language does not specifically refer to ecological reserves in marine areas, the Fish and Game Commission has extended this policy to those areas.

Existing enforcement: Included as part of normal Department of Fish and Game marine patrol activities for this general area based on available patrol resources and level of fishery activity in the area.

Baseline and ongoing monitoring and research studies: None found.

Basic Evaluation: Insufficient information for evaluation at this time.

Site name: San Dieguito Lagoon State Marine Park

Year established: 1988

Approximate Area: 0.12 nm² **Approximate Shoreline length:** 1.43 nm

Approximate Depth range (feet): not available

Habitat types: Estuarine tidal lagoon and channels with salt marsh habitat.

Surrounding habitat types: Coastal lowlands and bluffs, and urban development.

Summary of existing regulations: Take of all living marine resources is prohibited except the recreational take of finfish by hook and line from shore and the Grand Avenue Bridge. Boating, swimming, wading, and diving are prohibited within the park.

No person, except state and local law enforcement officers, fire suppression agencies and employees of the department in the performance of their official duties or persons possessing written permission from the Department, shall be permitted on the California least tern nesting island.

No person, except state and local law enforcement officers, fire suppression agencies and employees of the department in the performance of their official duties or persons possessing written permission from the Department, shall enter this park between 8:00 p.m. and 5:00 a.m.

The County of San Diego, after consultation with the department, may carry out management activities for fish and wildlife, flood control and vector control. Authorized operation and maintenance activities shall include, but shall not be limited to, use of chemicals, vegetation control, water control and use of associated equipment.

Collections of fish, wildlife, water and soil may be made by the Department for the purposes of fish and wildlife management or by San Diego County for the purposes of water quality testing and vector control.

Primary objectives: This area was originally designated as an ecological reserve. Fish and Game Code Section 1580 (ecological reserves) states that "the policy of the state is to protect threatened or endangered native plants, wildlife, or aquatic organisms or specialized habitat types, both terrestrial and nonmarine aquatic, or large heterogeneous natural gene pools for the future use of mankind through the establishment of ecological reserves." Although the language does not specifically refer to ecological reserves in marine areas, the Fish and Game Commission has extended this policy to those areas.

Existing enforcement: Included as part of normal Department of Fish and Game marine patrol activities for this general area based on available patrol resources and level of fishery activity in the area.

Baseline and ongoing monitoring and research studies: None found.

Basic Evaluation: Insufficient information for evaluation at this time.

Site name: San Diego-Scripps State Marine Conservation Area

Year established: 1957

Approximate Area: 0.11 nm²

Approximate Shoreline length: 0.54 nm

Approximate Depth range (feet): 0 to 20

Habitat types: Intertidal boulder field (Dike Rock area) and sandy beach with exposed cobble pockets. Subtidal sandy bottom and pier piling fouling community, submerged sandy plain with intruded lava, rocky reef, and pier pilings.

Surrounding habitat types: Similar to the site. Major rocky headland (La Jolla) with extensive kelp forest and reefs to the south. Scripps and La Jolla Submarine Canyons offshore.

Summary of existing regulations: Take of all living marine resources is prohibited except the commercial and recreational take of finfish. Licensees of the Regents of the University of California and all officers, employees, and students of such university may take, for scientific purposes, any invertebrate or specimen of marine plant life without a permit from the department.

Primary objectives: This area was originally designated as a marine life refuge. Although no specific objectives were provided for the marine life refuge designation, Fish and Game Code Section 10500 states that "Except under specific permit or authorization, it is unlawful: (f) To take or possess any invertebrate or specimen of marine plant life in a marine life refuge." In addition, individual marine life refuges may have been established for a variety of site specific purposes.

Existing Enforcement: Included as part of normal Department of Fish and Game marine patrol activities for this general area based on available patrol resources and level of fishery activity in the area. Local lifeguards may provide an added enforcement presence. Local residents and businesses frequently observe the area and report suspicious activities. Despite this level of awareness, poaching frequently occurs here and a number of citations are written each year.

Baseline and ongoing monitoring and research studies: Davis, N. and G. Van Blaricom (1978) re-sampled sandy bottom transects that were sampled by Fager from 1957 - 1963 off of La Jolla Pier. The US Navy has some data available. Ron McCaunneghy from Scripps has been monitoring changes in the MPA.

Basic Evaluation: Provides complete protection for invertebrates and marine plants. Site provides an opportunity for collection and research by Scripps Institution of Oceanography personnel. Allowed take of fishes may limit this site's ecosystem protection value, but could provide an opportunity to examine effects of such regulations.

Site name: La Jolla State Marine Conservation Area

Year established: 1971

Approximate Area: 0.58 nm²

Approximate Shoreline length: 1.41 nm

Approximate Depth range (feet): 0 to 280

Habitat types: Rocky reefs and outcrops surrounded by sand. Surfgrass, kelp forest.

Surrounding habitat types: Similar to the site. Sandy and pebbly beaches to the north. Scripps and La Jolla Submarine Canyons offshore.

Summary of existing regulations: Take of all living marine resources is prohibited except commercial bait fishing for squid by use of hand-held scoop net west of a line drawn due north from Goldfish Point. Boats may be launched and retrieved only in designated areas and may be anchored within the conservation area only during daylight hours.

Primary objectives: This area was originally designated as an ecological reserve. Fish and Game Code Section 1580 (ecological reserves) states that "the policy of the state is to protect threatened or endangered native plants, wildlife, or aquatic organisms or specialized habitat types, both terrestrial and nonmarine aquatic, or large heterogeneous natural gene pools for the future use of mankind through the establishment of ecological reserves." Although the language does not specifically refer to ecological reserves in marine areas, the Fish and Game Commission has extended this policy to those areas. A specific purpose for the San Diego-La Jolla State Marine Conservation Area was to provide an area of nearshore habitat protected from take for activities research associated with the adjacent Scripps Institute of Oceanography.

Existing Enforcement: Included as part of normal Department of Fish and Game marine patrol activities for this general area based on available patrol resources and level of fishery activity in the area. This is a popular, well enforced MPA with a variety of important habitat types, although lobster poaching is suspected to occur at night. Local lifeguards may provide an added enforcement presence.

Baseline and ongoing monitoring and research studies: Numerous studies by Scripps Institute of Oceanography, especially by Drs. Paul Dayton and Mia Tegner.

Basic Evaluation: Provides nearly complete protection for all marine life (except for limited take of squid) and an opportunity for research and public enjoyment of undisturbed marine communities. Kelp bass and sheephead were found in higher densities and larger sizes in this MPA than in nearby areas open to harvest indicating that this MPA is protecting these desirable species to a greater extent than general fishery regulations elsewhere.

Site name: Mia J. Tegner State Marine Conservation Area

Year established: 1978

Approximate Area: 0.01 nm²

Approximate Shoreline length: 0.54 nm

Approximate Depth range (feet): 0 to 6 (intertidal)

Habitat types: Intertidally the northern part of the MPA has narrow exposed shelves with boulder/cobble overlying the pavement reef. The southern part has wider (60-100 m), flatter reefs with fewer high-relief outcrops, boulders and surge channels than the northern part of the MPA. Subtidal habitat is mostly rocky (extension of intertidal) with surfgrass and patches of small kelps (mostly *Egregia*).

Surrounding Habitat types: Extensive rocky shoreline and kelp forest reefs to the north. San Diego Bay entrance with scattered reefs and sandy areas. Extensive kelp forest reefs offshore.

Summary of existing regulations: Take of all living marine resources is prohibited except the recreational take of finfish and the commercial take of finfish and marine aquatic plants.

Primary objectives: To protect intertidal and shallow subtidal marine populations within the Cabrillo National Monument.

Existing Enforcement: Included as part of normal Department of Fish and Game marine patrol activities for this general area based on available patrol resources and level of fishery activity in the area. National Park rangers and other staff provide and added on-site enforcement presence resulting in a closely policed area which appears to be effective in protecting resources from take.

Baseline and ongoing monitoring and research studies: Engle and Davis Navy, USGS, USMMS) have ongoing intertidal resources monitoring efforts since 1990. Zedler characterized intertidal resources in 1976 and documented public use and its effects in 1978.

Basic Evaluation: Provides protection to most invertebrates and plants in the intertidal zone. Cabrillo National Monument provides public interpretive and educational programs and information on marine life in the Reserve. Reserve appears to be effective as populations of many species, especially invertebrates such as limpets, snails and barnacles, and algae such as rockweed that are subject to harvesting and trampling pressure, are higher than in nearby areas open to take and unsupervised visitation.

Published references related to effectiveness of this MPA: 31, 49

Unpublished references related to effectiveness of this MPA: 218, 219

Published references related to use of this MPA as a research tool: 50, 51

Unpublished references related to use of this MPA as a research tool: 11, 47, 179